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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,580	01/08/2004	Matthew Sommers	GLOZ 2 00153 (#133821)	6610
27885	7590	11/01/2006	EXAMINER	
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			PREVIL, DANIEL	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/753,580

Applicant(s)

SOMMERS ET AL.

Examiner

Daniel Previl

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 7-14 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-14, 17-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This action is responsive to communication filed on August 18, 2006.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Sanders (US 6,568,109).

Regarding claim 4, Sanders discloses a signaling apparatus fig. 1) comprising: a light source including at least one LED, the light source having a light emitting surface (fig. 1; col. 2, lines 64-67; col. 3, lines 1-2); at least one sensor (photo sensor 4) (fig. 1; col. 3, line 27) set to detect an external light load directed to the light emitting surface (fig. 1-fig. 2; col. 3, lines 28-40) and generate a control signal indicative of a presence of the light (col. 4, lines 43-47); wherein the at least one sensor being positioned in an enclosure which is located remotely from the light source (photo sensor 4 is located remotely from the LED 3 in fig. 1) and an electrical control system 19 for receiving the control signal indicative of the

presence of the external light load (col. 4, lines 43-47) and triggering an increase in current being supplied to the at least one LED in response to the received control signal which increased current is being maintained for at least while the light load is present (col. 5, lines 30-40).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3, 7-14, 17-21, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders in view of Kniveton et al. (US 5,939,996).

Regarding claims 1, 11, 23, Sanders discloses a signaling control device apparatus (fig. 1) comprising: a light source including at least one

LED, the light source having a light emitting surface (fig. 1; col. 2, lines 64-67; col. 3, lines 1-2); at least one sensor (photo sensor 4) (fig. 1; col. 3, line 27) set to detect an external light load directed to the light emitting surface (fig. 1-fig. 2; col. 3, lines 28-40) and generate a control signal indicative of a presence of the external light load (col. 4, lines 43-47); an electrical control system 19 for receiving the control signal indicative of the presence of the external light load (col. 4, lines 43-47) and triggering an increase in current being supplied to the at least one LED in response to the received control signal which increased current is being maintained for at least while the external light load is present (col. 5, lines 30-40).

Sanders discloses all the limitations above but fails to explicitly disclose the external light load being one of sunlight and a light from approaching train headlights.

However, Kniveton discloses external light load being one of sunlight (col. 3, lines 10-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Kniveton's sunlight into Sanders's system. Doing so would modify Sanders's system with Kniveton's sunlight in order to detect the presence of the sunlight thereby enhancing the visibility of the sign for the safety purposes as taught by Kniveton (abstract).

Regarding claim 2, Sanders discloses one sensor includes a photodiode (fig. 1; col. 3, lines 27-33).

Regarding claim 3, Sanders discloses one LED 3 and at least one sensor 4 are disposed on the printed circuit board (fig. 1).

Regarding claim 7, Sanders discloses the current is continuous (DC in col. 4, line 34).

Regarding claim 8, Sanders discloses the current is pulsing (AC in col. 4, line 34).

Regarding claim 9, Sanders discloses the current is raised by pulsing the current at a frequency higher than visually perceivable (col. 5, lines 7-11).

Regarding claim 10, Sanders discloses a sensor detects a magnitude of the light load (intensity in abstract) and a control system receives a control signal indicative of a value of the magnitude of the load (intensity in abstract) and generates an increased current to be supplied to the at least one LED in proportion to the load magnitude (intensity in abstract).

Regarding claim 12, Sanders discloses one sensor includes a photodiode (fig. 1; col. 3, lines 27-33).

Regarding claim 13, Sanders discloses mounting the at least one LED on a printed circuit board (fig. 2) and at least one sensor are disposed on the printed circuit board (fig. 2).

Regarding claim 14, Sanders discloses one sensor is positioned in a location remote from the light source (fig. 1-fig. 2).

Regarding claim 17, Sanders discloses one of supplying a continuous current and a pulsing current (col. 4, line 34).

Regarding claim 18, Sanders discloses the current is raised by pulsing the current at a frequency higher than visually perceivable (col. 5, lines 6-10).

Regarding claim 19, Sanders discloses detecting a magnitude of the light load (intensity in abstract) and generating an output control signal indicative of a value of the light load magnitude (intensity in abstract).

Regarding claim 20, Sanders discloses the step of receiving the magnitude value (intensity) by an electrical control system (abstract) and supplying an elevated current to the at least one LED, the elevated current proportionate to the detected light load magnitude (intensity in abstract).

Regarding claim 21, Sanders discloses continually adjusting a value of the elevated current based on the detected light load magnitude (adjust intensity in abstract).

6. Claims 22, 24, rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders in view of Kniveton as applied to claim 14 above, and further in view of Graff et al. (US 5,451,017).

Regarding claims 22, 24, Sanders and Kniveton discloses all the limitations in claim 14 but fail to explicitly disclose step of positioning the rail signaling device on a sharp bend; and orienting the remotely positioned sensor along the bend towards a direction of the light of the approaching train headlights which train is approaching the rail signature device from beyond the bend.

However, Graff discloses step of positioning the rail signaling device on a sharp bend (fig. 1); and orienting the remotely positioned sensor 14 (fig. 1) along the bend towards a direction of the light of the approaching train headlights which train is approaching the rail signature device from beyond the bend (fig. 1; col. 6, lines 12-33).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Graff's train headlights into Sanders and Kniveton's system. Doing so would modify Sanders and Kniveton's system with Graff's train headlights in order to detect the light load thereby enhancing the visibility of the sign for the safety purposes as taught by Kniveton (abstract).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-4, 7-14, 17-24 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zimmermann et al. (US 5,952,917) discloses a taillight fixture of a vehicle preferably a motor vehicle.

Ellis et al. (US 4,629,941) discloses differential illumination sensitive switching circuit.

Marshall et al. (US 6,445,139) discloses LED luminaire with electrically adjusted color balance.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is (571) 272-2971. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Previl  
Examiner  
Art Unit 2636

DP  
October 20, 2006.

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER  
10/30/06